Allurion Literature – February 2026

Journal Publications & Congress Abstracts

Allurion Literature – Journal Publications (30)

Meta-Analyses and Registry Studies

Safety and Efficacy Data From Around the World

LATAM, Middle East, Europe, Asia

Adolescent Patients

Body Composition Analysis

Consecutive Allurion Balloons

Combination Therapy With Weight-Loss Drugs

Long-Term Weight Loss Maintenance

Symptom Management

Cost-Effectiveness of the Allurion Balloon

Health Coaching in Combination With the Allurion Balloon Program

ABSTRACTS

Meta-Analyses and Registry Studies (1/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Silva AF, Bestetti AM, Kum AST, et al. Effectiveness and Safety of the Allurion Swallowable Intragastric Balloon for Short-term Weight Loss: A Systematic Review and Meta-analysis. *Obes Surg*. 2024;34(10):3735-3747. doi.org/10.1007/s11695-024-07453-5	2107	• Study Design: Systematic review and meta-analysis • Search Databases: MEDLINE, EMBASE, Cochrane Library, Google Scholar (2016 to February 2024) • Inclusion Criteria: Studies evaluating the Allurion swallowable intragastric balloon in overweight or obese adults	• Age Range: Adults (≥18 years) • Study Locations: Various international centers	• BMI Reduction: Mean difference (MD) of -4.75 • Total Weight Loss (TWL): MD of -12.47% • Excess Weight Loss (EWL): MD of -48.04% • Adverse Events: • Grade I: Abdominal pain (24.01%), nausea (29.42%), early deflation (1.93%) • Grade IIIA: Clinical intolerance (3.62%), gastric obstruction (0.19%), small bowel obstruction (0.05%) • Grade IIIB: Surgical interventions (0.24%)	• The Allurion swallowable intragastric balloon is effective for short-term weight loss. • It has a favorable safety profile with low rates of serious adverse events. • Further studies are needed to evaluate long-term outcomes.
Ramai D, Singh J, Mohan BP, et al. Influence of the Elipse Intragastric Balloon on Obesity and Metabolic Profile: A Systematic Review and Meta-Analysis. *J Clin Gastroenterol*. 2021;55(10):836-841. https://doi.org/10.1097/MCG.0000000000001484	2152	• Study Design: Systematic review and meta-analysis of seven prospective cohort studies • Search Databases: PubMed, EMBASE, Google Scholar (up to April 2020) • Inclusion Criteria: Adults (≥18 years) who underwent Elipse intragastric balloon (EIGB) placement • Exclusion Criteria: Pediatric studies, case reports/series with <10 patients, non-English publications	• Age Range: 18 to 65 years • Study Locations: Greece, Kuwait, Czech Republic, Italy, Spain, France, Belgium, UAE, Qatar	• Total Body Weight Loss (TBWL): 12% • Excess Body Weight Loss (EBWL): 49.1% • Early Balloon Deflation Rate: 1.8% • Adverse Events: Abdominal pain (37.5%), vomiting (29.6%), diarrhea (15.4%), small bowel obstruction (0.5%)	• The Elipse intragastric balloon is effective for weight loss and improving metabolic profiles. • It is associated with fewer adverse events compared to other intragastric balloons. • The device is safe, tolerable, and does not require endoscopy for placement or removal.

Meta-Analyses and Registry Studies (2/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Vantanasiri K, Matar R, Beran A, Jaruvongvanich V. The Efficacy and Safety of a Procedureless Gastric Balloon for Weight Loss: a Systematic Review and Meta-Analysis. *Obes Surg*. 2020;30(9):3341-3346. https://doi.org/10.1007/s11695-020-04522-3	2013	• Study Design: Systematic review and meta-analysis of six prospective cohort studies • Search Databases: Ovid MEDLINE, EMBASE, Cochrane Central Register of Controlled Trials, Scopus (up to November 2019) • Inclusion Criteria: Adults who underwent Elipse intragastric balloon (EIGB) implantation, reporting percent total weight loss (%TWL) and adverse events	• Age Range: Adults (≥18 years) • Study locations: International (Greece, Spain, Kuwait, Czech Republic)	• Baseline BMI: 30.6 to 36.2 • Total Weight Loss (TWL): 4-6 months: 12.8%, 12 months: 10.9% • Early Removal Rate: 2.3% • Serious Adverse Events: Small bowel obstruction (3 patients), Gastric perforation requiring surgery (1 patient) • Minor Adverse Events: Abdominal pain, nausea/vomiting, early expulsion by emesis (3 patients), early deflation (9 patients)	• EIGB is effective for weight loss with a good safety profile. • Serious adverse events are rare. • Further studies are needed to evaluate long-term outcomes and compare with other intragastric balloons.
Ienca R, Al Jarallah M, Caballero A, et al. The Procedureless Elipse Gastric Balloon Program: Multicenter Experience in 1770 Consecutive Patients. *Obes Surg*. 2020;30(9):3354-3362. https://doi.org/10.1007/s11695-020-04539-8	1770	• Study Design: Multicenter, prospective, non-randomized, open-label registry study • Inclusion Criteria: Adults with BMI > 27 kg/m², previous failed dietary treatments • Exclusion Criteria: Pregnant women, history of multiple caesarean sections, swallowing problems, GI cancer, severe psychological disorders	• Age Range: 18 to 65 years • Study Locations: 19 international obesity centers (Europe and Middle East)	• Baseline Characteristics: Mean age 38.8 years, mean weight 94.6 kg, mean BMI 34.4 kg/m² • Weight Loss: Mean WL 13.5 kg, %EWL 67.0, BMI reduction 4.9 points, %TBWL 14.2 • Metabolic Improvements: Triglycerides reduced to 99.4 mg/dL, LDL to 106.9 mg/dL, HbA1c to 4.8% • Safety: 99.9% swallowed the device, 2.9% required removal due to intolerance, 0.6% early deflation, 0.17% small bowel obstruction (early design), rare serious adverse events	• The Elipse balloon is effective for weight loss and improving metabolic parameters. • It has a favorable safety profile with low rates of serious adverse events. • The non-endoscopic nature of the device allows wider application and ease of use.

Safety and efficacy data from around the world – LATAM (1/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Palermo M, Davrieux F. Swallowable Gastric Balloon: As a Noninvasive Option for Weight Loss. *J Laparoendosc Adv Surg Tech A*. 2025 Jul 16. doi: 10.1177/10926429251359390. Epub ahead of print. PMID: 40669864.	497	• Descriptive, retrospective, observational study of 497 adults with obesity who received a swallowable gastric balloon (Elipse System), all in a single center in Buenos Aires, Argentina, from Jan 2020–Jan 2024; follow-up included multidisciplinary team support.	• 71% female, 29% male; mean age 39 years (range: 18–65). • Mean BMI 31.7 (range: 30.9–39.2).	• Mean weight loss: 14.3%, with 86% maintaining loss at 12 months. • 100% placement success; adverse effects: nausea/vomiting 22.9%, abdominal pain 33%, reflux 52%, complications (e.g., intolerance, hyperinflation) <1.1%. No procedure-related deaths.	• Swallowable gastric balloon is an effective, noninvasive option for overweight/obese patients, particularly for those unwilling to undergo surgery.
Muriel ME, García M, Martínez Lascano F, et al. Assessing the Efficacy and Safety of the Allurion® Gastric Balloon in Latin American Patients: A Multicenter Case Series. *J Laparoendosc Adv Surg Tech A*. 2025;35(9):714-720. doi:10.1177/10926429251363490	402	• Retrospective analysis of 402 adults (BMI ≥27) treated with the Allurion® gastric balloon (AGB) in 8 centers across Argentina, Chile, and Peru (Sep 2021–Sep 2022) with 12-month follow-up. • Patients received multidisciplinary evaluation, standardized AGB placement, and app-assisted follow-up.	• 68.4% female; mean age 43 years (16–75). • Mean initial weight 92.7 kg (range: 62–177), BMI 32.8 (27–52). • 24% overweight, 52% grade I obesity, 17% grade II, 6% grade III.	• Mean total weight loss: 8.3% at 3 months, 11.6% at 6 months, 14.9% at 12 months. • Adverse event rate 1.2%; complication rate 6.5%; readmission 5.0%; early balloon deflation 2.7%.	• AGB is a safe, effective option for overweight and obesity in Latin America. • Success requires lifestyle changes and multidisciplinary support.

Safety and efficacy data from around the world – LATAM (2/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Patiño Araujo B, Duque Jácome KE, Salgado Báez ME, Villavicencio Logroño G, Salgado Macías N. Impact of the swallowable Allurion intragastric balloon on body weight and composition: An Ecuadorian experience. *Clin Obes*. Published online September 22, 2024. doi.org/10.1111/cob.12705	167	• Study Design: Single-centre retrospective study • Follow-up Duration: 12 months • Inclusion Criteria: Patients who underwent Allurion IGB insertion from July 2020 to March 2021 • Body Composition Analysis: Bioelectrical impedance analysis using Inbody270 device	• Age Range: Mean age 39 ± 11.6 years • Study Location: Clinica Bariatrica Dr. Napoleon Salgado, Quito, Ecuador	• Initial Weight: Mean 83.6 ± 13.8 kg • Initial BMI: Mean 31.3 ± 3.6 kg/m² • Weight Loss: %TWL: 4.65% (month 1), 17.14% (month 6), 14.68% (month 12) • Body Fat Percentage: Decreased from 38.99% to 35.67% ($p < .05$) • Adverse Events: Abdominal cramps (22.8%), nausea (16.2%), vomiting (12%), constipation (4.2%)	• The Allurion IGB is effective for short-term weight loss and improving body composition. • It has a favorable safety profile with manageable side effects. • Further research is needed to assess long-term weight maintenance post-balloon expulsion.
Palermo M, Davrieux CF. Swallowable Intragastric Balloon: First Consecutive Experience in Argentina. *J Laparoendosc Adv Surg Tech A*. 2023;33(2):146-149. https://doi.org/10.1089/lap.2022.0340	153	• Study Design: Descriptive retrospective observational study • Follow-up Duration: 6-months • Inclusion Criteria: Age 18-64 years, BMI 27-45 kg/m², residence close to the institution • Exclusion Criteria: Organ failure, anticoagulation / antiaggregation, cancer, hiatal hernia, pregnancy / lactation	• Age Range: 21 to 72 years (mean age 39 years) • Study Location: Diagnomed, Buenos Aires, Argentina	• Initial BMI: Mean 29.5 kg/m² • Weight Loss: Mean 4-month weight loss of 12% • Adverse Events: Abdominal pain (80%), nausea (60%), vomiting (38%), headache (36%), gastroesophageal reflux (29%), constipation (11%), diarrhea (7%) • Safety: No deaths, early removal in one case due to intolerance, early deflation in three cases	• The swallowable balloon is effective, safe, and well tolerated for obesity treatment. • Adverse effects are generally mild and short-lived. • Further randomized clinical trials are needed to assess long-term efficacy.

Safety and efficacy data from around the world – MEA (1/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Taha O, Abdelaal M, Asklany A, et al. Outcomes of a Swallowable Intragastric Balloon (Elipse™) on 96 Overweight and Obese Patients. *Obes Surg*. 2021;31(3):965-969. https://doi.org/10.1007/s11695-020-05086-y	96	• Study Design: Retrospective analysis • Follow-up Duration: 4 months • Inclusion Criteria: Age 12-70 years, BMI 28-45 kg/m² • Exclusion Criteria: Previous bariatric surgery, bowel obstructions, heart failure, pregnancy, blood coagulation disorders	• Age Range: 16 to 54 years (mean age 28.9 ± 13 years) • Study Location: Assiut University Hospital and Osama Taha Group Clinics, Egypt	• Initial BMI: Mean 33.6 ± 4.3 kg/m² • Weight Loss: Mean 11.2 ± 5.1 kg • Waist Circumference Reduction: Mean 10.9 ± 2.1 cm • BMI Reduction: Mean 4.9 ± 2.0 kg/m² • Total Body Weight Loss (TBWL%): 12.1 ± 5.2% • Adverse Events: Nausea, vomiting, abdominal pain, diarrhea, early balloon removal (3.1%), early deflation (1.1%)	• The Elipse balloon is effective for weight loss and improving metabolic parameters. • It is safe and well-tolerated, with manageable side effects. • Further studies are needed to confirm these results and investigate long-term outcomes.
Jamal MH, Almutairi R, Elabd R, AlSabah SK, Alqattan H, Altaweel T. The Safety and Efficacy of Procedureless Gastric Balloon: a Study Examining the Effect of Elipse Intragastric Balloon Safety, Short and Medium Term Effects on Weight Loss with 1-Year Follow-Up Post-removal. *Obes Surg*. 2019;29(4):1236-1241. https://doi.org/10.1007/s11695-018-03671-w	106	• Study Design: Single-center prospective study • Follow-up Duration: 1-year post-expulsion • Inclusion Criteria: Adults with BMI ≥ 27.5 kg/m² • Exclusion Criteria: Eating disorders, previous abdominal surgery, severe GERD, bleeding disorders, pregnancy, etc.	• Participants: 106 patients (73.6% female, 26.4% male) • Age Range: Mean age 31.3 years • Study Location: Dar Al-Shifa Hospital, Kuwait City	• Initial BMI: Mean 34.3 kg/m² • Weight Loss (Mean TBWL) ○ 3 months: 10.7% ○ 6 months: 10.9% ○ 1 year: 7.9% • Adverse Events: Abdominal pain (46.2%), nausea/vomiting (71.7%), small bowel obstruction (1 case), early balloon deflation (3 cases), intolerance (6 cases)	• The Elipse balloon is effective for weight loss, particularly in patients with BMI < 34.9. • It is safe and well-tolerated, with manageable side effects. • Further studies are needed to assess long-term safety and efficacy.

Safety and efficacy data from around the world – MEA (2/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Alsabah S, Al Haddad E, Ekrouf S, Almulla A, Al-Subaie S, Al Kendari M. The safety and efficacy of the procedureless intragastric balloon. *Surg Obes Relat Dis*. 2018;14(3):311-317. https://doi.org/10.1016/j.soard.2017.12.001	135	• Study Design: Multicenter, prospective analysis • Follow-up Duration: 4 months • Inclusion Criteria: BMI 25-45 kg/m², patients not opting for bariatric surgery or anesthesia • Exclusion Criteria: History of small-bowel obstruction, esophageal, gastric, or intestinal disease, inflammatory bowel disease, cancer, large hiatal hernia, smoking, chronic NSAID use	• Age Range: Mean age 33.5 years • Study Location: Royale Hayat, Sabah, and Amiri Hospitals, Kuwait	• Weight Loss: Mean reduction of 13.0 kg • BMI Reduction: Mean drop of 4.9 units • Total Body Weight Loss (TBWL%): 15.1% • Adverse Events: Nausea (100% first day, resolved by third day in 69.6%), vomiting (25.9%), abdominal pain (21.5%), diarrhea (13.3%), early balloon removal (5.9%), early deflation (2.2%), small bowel obstruction (0.7%)	• The Elipse balloon is effective for weight loss and has a favorable safety profile. • It can be safely swallowed, filled, imaged, and passed without endoscopy or anesthesia. • Further studies are needed to confirm long-term efficacy and safety.
Al-Subaie S, Khalifa S, Buhaimed W, Al-Rashidi S. A prospective pilot study of the efficacy and safety of Elipse intragastric balloon: A single-center, single-surgeon experience. *Int J Surg*. 2017;48:16-22. https://doi.org/10.1016/j.ijsu.2017.10.001	51	• Study Design: Single-center prospective pilot study • Follow-up Duration: 4 months • Inclusion Criteria: Adults with BMI 27-40 kg/m² • Exclusion Criteria: Patients lost to follow-up, those who had endoscopic balloon removal, or vomited the balloon	• Participants: 51 patients (47 females, 4 males) • Age Range: 18 to 65 years (mean age 33.6 years) • Study Location: Faisal Polyclinic, Kuwait City	• Weight Loss: Mean 8.84 kg • BMI Reduction: Mean 3.42 kg/m² • Total Body Weight Loss (TBWL%): 10.44% • Excess Weight Loss (EWL%): 40.84% • Waist Circumference Reduction: Mean 8.62 cm • Adverse Events: Severe symptoms post-insertion (weakness, abdominal pain, vomiting, nausea), mild symptoms during excretion (diarrhea, abdominal discomfort) • Satisfaction: Above average	• The Elipse intragastric balloon is effective for weight loss and has a favorable safety profile. • High symptom severity post-insertion was noted, but symptoms were manageable. • Larger studies are needed to confirm these findings.

Safety and efficacy data from around the world – Europe (1/3)

Citation	Sample size (n)	Methods	Demographics	Results	Conclusions
Jense MTF, Palm-Meinders IH, Sanders B, Boerma EG, Greve JWM. The Swallowable Intragastric Balloon Combined with Lifestyle Coaching: Short-Term Results of a Safe and Effective Weight Loss Treatment for People Living with Overweight and Obesity. *Obes Surg*. 2023;33(6):1668-1675. doi.org/10.1007/s11695-023-06573-8	336	• Study Design: Retrospective data study. • Participants: Adults with BMI > 27 kg/m², excluding those with swallowing difficulties, previous upper GI surgeries, or severe GI motility disorders. • Procedure: Swallowable intragastric balloon (IB) placement combined with a 12-month lifestyle coaching program. • Data Collection: Patient data collected from December 2018 to July 2021.	• Gender: 71.7% female • Mean Age: 45.7 years • Mean Baseline Weight: 107.54 kg • Mean Baseline BMI: 36.1 kg/m²	• Weight Loss: Mean total weight loss of 11.0 kg after 1 year. • Placement Duration: Mean of 13.1 minutes. • Symptoms: Nausea (80.4%), gastric pain (80.3%), resolved within a week. • Early Deflation: Occurred in 2.4% of patients.	• The swallowable intragastric balloon combined with lifestyle coaching is a safe and effective weight loss treatment for patients with overweight and obesity.
Ernesti I, Ienca R, Basciani S, Mariani S, Genco A (2018) Effect of A New Swallowable Intragastric Balloon (Elipse™) on Weight Loss and Metabolic Syndrome. *J Obes Nutr Disord*: JOND-120. doi.org/10.29011/JOND-120.100020	42	• Study Design: Prospective, single-center study. • Participants: 42 adults with BMI > 27 kg/m². • Procedure: Placement of the Elipse™ swallowable intragastric balloon. • Duration: 16 weeks. • Measurements: Weight, BMI, metabolic syndrome parameters.	• 69% female • 31% male • Mean age: 47.2 ± 10.3 years • Mean Wt: 110.5 ± 21.9 kg • Mean BMI: 39.2 ± 6.7 kg/m² • WC: 123.5 ± 16.9 cm	• Mean weight loss : 12.9 kg • TBWL: 11.9% • Change in BMI: 4.5 kg/m² • WC: 111 ± 16.2 cm • Significant reduction in major comorbidities: blood pressure, WC, triglycerides, blood glucose and HOMA-IR index. • No complications	• The main finding of the present study was a significant BMI reduction and Metabolic syndrome remission rate within 4 months of treatment instead of 6 months, as happens in other balloons

Safety and efficacy data from around the world – Europe (2/3)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Genco A, Ernesti I, Ienca R, et al. Safety and Efficacy of a New Swallowable Intragastric Balloon Not Needing Endoscopy: Early Italian Experience. *Obes Surg*. 2018;28(2):405-409. https://doi.org/10.1007/s11695-017-2877-1	38	• Study Design: Prospective study. • Participants: 38 overweight/obese patients (28 females, 10 males; mean age 46.4 years; mean weight 109.7 kg; mean BMI 38.6 kg/m²). • Procedure: Swallowed Elipse™ Balloon under fluoroscopy, no endoscopy required. • Follow-Up: Weekly evaluations for the first month, then bi-weekly.	• Gender: 73% female, 27% male. • Age: Mean 46.4 years. • Weight: Mean 109.7 kg. • BMI: Mean 38.6 kg/m².	• Weight Loss: Mean 12.7 kg (11.6% total body weight loss), mean BMI reduction 4.2 kg/m². • Metabolic Improvements: Significant reductions in blood pressure, waist circumference, triglycerides, blood glucose, and HOMA-IR index. • Safety: No serious adverse events; common side effects included nausea and regurgitation.	• The Elipse™ Balloon is safe, effective, and well-accepted, offering a non-invasive weight loss option without the need for endoscopy or sedation. Further studies are needed to confirm these findings.
Machytka E, Gaur S, Chuttani R, et al. Elipse, the first procedureless gastric balloon for weight loss: a prospective, observational, open-label, multicenter study. *Endoscopy*. 2017;49(2):154-160. https://doi.org/10.1055/s-0042-119296	34	• Design: Prospective, observational, open-label, multicenter study. • Procedure: Participants swallowed the Elipse device, filled with 550mL fluid, residing in the stomach for 4 months before being expelled. • Assessments: Weight measured bi-weekly; metabolic parameters and quality of life assessed at baseline and trial exit.	• Participants: 34 individuals (23 women, 11 men). • Mean Age: 42 years (range 18–59). • Mean BMI: 34.8 kg/m² (range 27–40 kg/m²).	• Weight Loss: Mean percent total body weight loss of 10%. • Waist Circumference: Reduced by 8.4 cm. • Metabolic Improvements: Reductions in hemoglobin A1c, triglycerides, LDL, and blood pressure. • Quality of Life: Improved across all domains.	• Efficacy: Elipse device demonstrated clinically significant weight loss and metabolic improvements. • Safety: No serious adverse events; all adverse events were self-limiting or resolved with medication. • Potential: Elipse offers a non-surgical, effective weight loss option without the need for endoscopy or anesthesia.

Safety and efficacy data from around the world – Europe (3/3)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions

Raftopoulos I, Giannakou A.
 	
The Elipse Balloon, a swallowable gastric balloon for weight loss not requiring sedation, anesthesia or endoscopy: a pilot study with 12-month outcomes. *Surg Obes Relat Dis*. 2017;13(7):1174-1182.
 	
https://doi.org/10.1016/j.soard.2017.02.016
	12	• Study Design: Prospective, nonrandomized open trial.
		• Participants: 12 patients, ages 18-64, BMI 27-40 kg/m².
		• Procedure: Swallowable Elipse Balloon, no sedation/anesthesia, confirmed by x-ray.
		• Follow-Up: Diet and exercise counseling for 4 months, assessments at balloon excretion and 12 months.
			• Total Patients: 12 (7 females, 5 males).
			• Mean Age: 41 years.
			• Mean BMI: 35.9 kg/m².
			• Mean Weight: 103.5 kg.
				• Weight Loss:
				  • Balloon excretion: 50.2% EWL, 14.6% TWL.
				  • 12 months: 17.6% EWL, 5.9% TWL.
				• Safety: No serious adverse events, mild accommodative symptoms.
					• Effectiveness: Significant weight loss, comparable to other IGBs.
					• Sustainability: 54.5% maintained at least 40% of weight loss at 12 months.
					• Recommendation: Elipse Balloon is a safe, effective, non-invasive weight loss option.

Machytka E, Chuttani R, Bojkova M, et al. Elipse™, a Procedureless Gastric Balloon for Weight Loss: a Proof-of-Concept Pilot Study. *Obes Surg*. 2016;26(3):512-516. doi.org/10.1007/s11695-015-1783-7	8	• Study Design: Prospective, non-randomized pilot study. • Participants: 8 patients, BMI 27-35 kg/m². • Procedure: Swallowable Elipse™ balloon, filled with 450 mL fluid, no endoscopy or sedation. • Follow-Up: Abdominal imaging every 2 weeks, no specific diet/exercise plan.	• Total Patients: 8 (7 females, 1 male). • Mean Age: 40 years. • Mean BMI: 31.0 kg/m². • Mean Weight: 88.0 kg.	• Weight Loss: Mean weight loss of 2.4 kg, 12.4% EWL after 6 weeks. • Safety: No serious adverse events; common mild/moderate AEs included nausea, vomiting, and cramping.	• Effectiveness: Safe, procedureless weight loss method. • Recommendation: Future studies to test commercial version with longer duration and larger fill volume.

Safety and efficacy data from around the world – APAC

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions

Kosai NR, Ali AA, Ghita R, et al.
 	
One-Year Outcomes in a Supervised Program of Swallowable Intragastric Balloon-Analysis of 486 Patients in a High-Volume Bariatric Centre in Malaysia. *Obes Surg*. 2024;34(9):3366-3371.
 	
doi.org/10.1007/s11695-024-07414-y
	404	• Study Design: Prospective data collection from 486 consecutive patients.
		• Procedure: Swallowable intragastric balloon (IGB) insertion without sedation or endoscopy.
		• Inclusion Criteria: BMI > 27 kg/m², ages 18-65, metabolic syndrome, rejection of surgical alternatives.
		• Exclusion Criteria: History of bowel obstruction, previous bariatric/metabolic surgery, gastrointestinal diseases, bleeding disorders, eating disorders, severe psychological disorders, pregnancy.
		• Follow-Up: Regular assessments at 2 weeks, 2 months, 4 months, and monthly for 1 year.
			• Total Patients: 486 (404 completed 12-month follow-up).
			• Gender: 83% female.
			• BMI Categories:
			  • BMI < 29.9 kg/m²: 94 patients.
			  • BMI 30-39.9 kg/m²: 295 patients.
			  • BMI ≥ 40 kg/m²: 97 patients.
			• Age Range: 18-65 years.
				Weight Loss:
				• 4 months: Average weight loss of 9.8 kg.
				• 12 months: Average weight loss of 12.9 kg.
				BMI Reduction:
				• Initial: 35.3 ± 7.2 kg/m².
				• 4 months: 31.5 ± 5.7 kg/m².
				• 12 months: 30.3 ± 5.4 kg/m².
				Total Body Weight Loss (TBWL):
				• 4 months: 10.5%.
				• 12 months: 13.7%.
					• Effectiveness: Significant weight loss observed, especially within the first 4 months.
					• Sustainability: Continued weight loss up to 1 year with adequate guidance and lifestyle modifications.
					• Safety: Minimal side effects or complications.
					• Recommendation: Swallowable IGB is a safe and effective non-invasive option for weight loss.

Adolescent patients

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Oyola C, Berry M, Salazar MAP, et al. Successful Weight Loss in Adolescents with Overweight or Obesity Using a Swallowable Intragastric Balloon and Nutritional Oversight. *Obes Surg*. 2024;34(10):3762-3770. doi.org/10.1007/s11695-024-07458-0	91	• Design: Single-arm, multicenter, retrospective data collection study. • Procedure: Swallowable intragastric balloon (SGB) filled with 550 mL fluid, expelled naturally after ~4 months. • Assessments: Weight monitored monthly; adverse events recorded.	• Participants: 91 adolescents (69 females, 22 males). • Mean Age: 16.4 years. • Mean BMI: 35.6 kg/m².	• Weight Loss: Mean total body weight loss of 13.05%. • BMI Reduction: Decreased by 4.74 kg/m². • Adverse Events: 12.1% experienced adverse events (mostly nausea/vomiting); no serious adverse events or premature device removals.	• Efficacy: SGB program provided significant short-term weight loss. • Safety: Well-tolerated with no serious adverse events. • Potential: Effective non-invasive option for adolescent weight loss.

Body Composition Analysis

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Pagani I, Syed M, Rajkumar S, et al. Exploratory Machine Learning Methods to Assess a Novel Individualized Lifestyle Intervention on Weight and Body Composition with or Without a Swallowable Intragastric Balloon. *Obes Surg*. 2025;35(12):5210-5227. doi:10.1007/s11695-025-08336-z	1,143	• Case-controlled study; BMI ≥30; 36-week individualized lifestyle intervention (LI); subgroup with SIGB (n=267) vs LI only (n=876). • Protocol: personalized nutrition (protein-focused), exercise goals, telehealth follow-ups; SIGB swallowed, self-empties ~16 weeks. • Outcomes: %TBWL, %FML, %VFL, %MML via bioimpedance	• Groups size: LI 876, LI+SIGB 267. • Differences: SIGB group higher BMI, different sex distribution. • Ages ~40–42 yrs across groups	• At 16 weeks: TBWL 16.11% (LI+SIGB) vs 10.22% (LI); higher FML and VFL with SIGB. • Muscle loss higher with SIGB but FML ≫ MML in both groups. • More SIGB patients reached >5%, >10%, >20% TBWL thresholds	• SIGB as adjunct significantly boosts early weight, fat, and visceral fat loss. • Body composition improvements favorable (fat>muscle loss), though MML needs monitoring. • SIGB safe, well-tolerated, accelerates lifestyle-driven results; strongest effects in first 16 weeks.
Dejeu D, Dejeu P, Bradea P, Muresan A, Dejeu V. Evaluating Weight Loss Efficacy in Obesity Treatment with Allurion's Ingestible Gastric Balloon: A Retrospective Study Utilizing the Scale App Health Tracker. *Clin Pract*. 2024;14(3):765-778. Published 2024 May 6. doi.org/10.3390/clinpract14030061	571	• Design: Retrospective, observational, single-center study. • Procedure: Allurion's ingestible gastric balloon, naturally expelled after ~16 weeks. • Assessments: Weight, body composition, and physical activity tracked using the Scale App Health Tracker and Allurion smartwatch.	• Participants: 571 individuals (286 less active, 285 more active). • Mean Age: 41 years. • Mean BMI: 34.5 kg/m².	• Weight Loss: Significant reduction in weight (from 97.9 kg to 84.0 kg) and BMI (from 34.1 to 29.7 kg/m²). • Body Fat: Decreased from 32.7% to 27.9%. • Lean Mass: Increased in both groups, more significantly in the more active group. • Adverse Events: Nausea (3.7%) and abdominal discomfort (3.5%) were the most common; no severe complications.	• Efficacy: Allurion's ingestible gastric balloon effectively reduces weight and improves body composition. • Safety: Well-tolerated with minimal adverse events. • Potential: Effective non-invasive option for weight management, regardless of physical activity level.

Consecutive Allurion Balloons

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Caballero A, Giardiello C, Quartararo G, et al. Multicenter Retrospective Analysis of Consecutive Swallowable Gastric Balloon Treatments in a Community Obesity Care Setting. *Obes Surg*. 2025;35(11):4737-4743. doi:10.1007/s11695-025-08311-8	121	• Retrospective, 11 centers, 2 consecutive SGBs (2017–2023) • Outcomes: WL, TBWL, BMI change; safety events • First SGB ~4 months → second SGB after 1–5 months; lifestyle follow-up	• 69% female • Baseline: Age 43.6 yrs; weight 102.6 kg; BMI 36.4	• After SGB1: WL 14.0 kg; TBWL 15.9% • After SGB2: +7.3 kg WL; +9.3% TBWL; total 19.3 kg / 22.1% TBWL • ≥20% TBWL in 58.6%; no serious adverse events	• Consecutive SGBs safe; only mild transient symptoms • Second SGB adds meaningful additional WL • Useful non-surgical option for added WL after first SGB

Combination Therapy With Weight-Loss Drugs

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Flagiello L, et al. Combined Intragastric Balloon and Low-Dose GLP-1 Receptor Agonist Therapy Achieves Major Weight and Fat Mass Reduction with No Dropouts: A 12-Month Cohort Study Under review 2026	79	• Prospective 12-month cohort: 4-month Allurion balloon → 8-month low-dose GLP-1 RA (tirzepatide) (2.5–5 mg). • Body composition tracked via BIA; endpoints: WL, TBWL, FM, LM. • Safety tracked; 100% completion.	• Baseline weight 121.7 kg, BMI 40.9. • Baseline FM 45.9 kg (37.4%), LM 74.6 kg (62.4%). • Class II–III obesity population with high adiposity.	• TBWL 27.3 kg (22.4%) at 12 months; weight ↓ from 121.7 → 94.3 kg. • FM −16.6 kg (−7%), LM −9.4 kg, but LM% ↑ +6.9 %. • No dropouts, no SAEs; only mild transient diarrhea (3.8%) during GLP-1 titration.	• Combined balloon + low-dose tirzepatide yields large, fat-dominant weight loss. • Body composition improves, major FM reduction, favorable LM%. • Highly safe and exceptionally adherent strategy; promising multimodal obesity therapy.
Mathur W, Kosta S, Reddy M, Neto MG, Bhandari M. Effect of Swallow Balloon Therapy with the Combination of Semaglutide Oral Formulation: a Randomized Double-Blind Single-Centre Study. *Obes Surg*. 2024;34(1):198-205. doi.org/10.1007/s11695-023-06975-8	115	• Design: Randomized, double-blind, single-center study. • Procedure: Swallow balloon therapy with and without semaglutide oral formulation. • Assessments: Weight loss, metabolic parameters, comorbidity resolution, adverse events, and quality of life.	• Participants: 108 individuals (53 with semaglutide, 55 without). • Mean Age: 41.1 years. • Mean BMI: 39.7 kg/m².	• Weight Loss: Group I (with semaglutide): 17.6% TBWL, Group II: 13.7% TBWL at 4 months. • Metabolic Improvements: Significant reductions in cholesterol, LDL, triglycerides, and increases in HDL. • Comorbidity Resolution: Higher resolution rates for T2DM, HTN, and DLP in Group I. • Adverse Events: gastrointestinal cramps, nausea, and vomiting; no major late complications.	• Efficacy: Combination of swallow balloon and semaglutide showed better weight loss and comorbidity resolution. • Safety: Well-tolerated with manageable adverse events. • Potential: Promising non-surgical approach for obesity management, enhancing weight loss and metabolic health.

Long-Term Weight Loss Maintenance

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Caballero A, Giardiello C, Schiano Di Cola R, Rosa M, Juneja G, Pagan A, Murcia S, Formiga A, Freda A, Ienca R. Weight Loss Maintenance 1 Year after the Swallowable Gastric Balloon: Results from an International Multicenter Study. *Obes Surg*. 2025 Jul 17. doi: 10.1007/s11695-025-08074-2. Epub ahead of print. PMID: 40676353.	522	• Retrospective, multicenter study across 9 obesity clinics in 4 countries. • Patients followed biweekly during balloon residency and monthly for 1 year post-passage. • Weight, BMI, and metabolic parameters analyzed; safety events tracked.	• 522 patients (63% female), mean age 43.5 years. • Mean baseline weight: 101.9 kg; BMI: 35.9 kg/m².	• At 4 months: mean TBWL 13.9%, BMI loss 5.1 kg/m². • At 1 year: 95% of TBWL maintained; BMI loss 4.9 kg/m². • Favorable trends in triglycerides, LDL, and HbA1c. • Low adverse event rate (1.2% required balloon removal).	• The swallowable gastric balloon program showed effective short- and long-term weight loss. • Remote monitoring via app and Bluetooth scale supported adherence. • Offers a non-surgical, low-risk alternative for obesity management.

Symptom Management

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Ienca R, Giardiello C, Scozzarro A, et al. Improving Nausea and Vomiting Post-Elipse Balloon: a Novel Single-Dose Regimen of 300 mg Netupitant/0.5 mg Palonosetron Hydrochloride. *Obes Surg*. 2019;29(9):2952-2956. https://doi.org/10.1007/s11695-019-03937-x	30	• Design: Multicenter clinical trial. • Procedure: Elipse™ balloon placement with a single dose of 300 mg netupitant/0.5 mg palonosetron hydrochloride. • Assessments: Visual analogue scale (VAS) for nausea, vomiting, and other symptoms for the first week post-placement.	• Participants: 78 patients (24 males, 54 females). • Mean Weight: 92.4 kg. • Mean BMI: 33.7 kg/m².	• Symptom Reduction: Nausea and vomiting scores decreased significantly from day 1 to day 6. • Efficacy: 87% reduction in vomiting, 70% reduction in nausea, and 73.4% reduction in gastric pain. • Adverse Events: No serious adverse events; mild constipation and tiredness in some patients.	• Efficacy: Single-dose netupitant/palonosetron effectively reduces nausea, vomiting, and gastric pain post-Elipse™ balloon placement. • Safety: Well-tolerated with minimal side effects. • Potential: Promising option for managing post-placement symptoms in intragastric balloon therapy.

Cost-effectiveness of the Allurion Balloon

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Mital S, Nguyen HV. Cost-effectiveness of procedure-less intragastric balloon therapy as substitute or complement to bariatric surgery. *PLoS One*. 2021;16(7):e0254063. Published 2021 Jul 28. https://doi.org/10.1371/journal.pone.0254063	NA	• Design: Microsimulation model comparing costs and effectiveness of six treatment strategies. • Strategies: PIGB alone, gastric bypass, sleeve gastrectomy, PIGB as a bridge to gastric bypass or sleeve gastrectomy, and no treatment.	• Participants: Simulated cohort of 10,000 adults aged 18-64 years with BMI ≥ 35 kg/m². • Obesity Classes: 56% class 2 obesity, 44% class 3 obesity.	• Cost-Effectiveness: PIGB as a bridge to sleeve gastrectomy is the most cost-effective strategy (ICER: $3,781 per QALY). • PIGB Alone: Cost-effective compared to no treatment (ICER: $21,711 per QALY). • Savings: PIGB as a bridge to bariatric surgery reduces total costs and improves health outcomes.	• Efficacy: PIGB is cost-effective as a bridge to bariatric surgery and as a stand-alone treatment for patients without access to surgery. • Potential: Valuable non-invasive option for obesity management, enhancing cost savings and health outcomes.

Health Coaching in Combination with the Allurion Balloon Program

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions

Sacher PM, Fulton E, Rogers V, et al.
 	
Impact of a Health Coach-Led, Text-Based Digital Behavior Change Intervention on Weight Loss and Psychological Well-Being in Patients Receiving a Procedureless Intragastric Balloon Program: Prospective Single-Arm Study. *JMIR Form Res*. 2024;8:e54723. Published 2024 Jul 31.
 	
doi.org/10.2196/54723
	107	• Study Design: 12-month, single-arm prospective study.
		• Participants: 107 adults, aged 21-65, BMI ≥27 kg/m².
		• Intervention: Procedureless intragastric balloon (PIGB) and health coach-led, text-based digital behavior change coaching intervention (DBCCI) for 6 months.
		• Assessments: Weight loss and psychological well-being via validated questionnaires.
			• Total Patients: 107 (96 females, 11 males).
			• Mean Age: 41.8 years.
			• Mean BMI: 35.4 kg/m².
			• Ethnicity: Predominantly White (59.8%).
				• Weight Loss:
				  • 6 months: 13.5% TBWL.
				  • 12 months: 11.22% TBWL.
				• Psychological Well-Being: Significant improvements in well-being, mood, quality of life, self-efficacy, and control over-eating.
					• Effectiveness: DBCCI was feasible, acceptable, and supported weight loss and psychological well-being.
					• Recommendation: Longer-term, more intense coaching may be needed for sustained weight loss maintenance.

Neary M, Fulton E, Rogers V, Wilson J, Griffiths Z, Chuttani R, Sacher PM. Think FAST: a novel framework to evaluate fidelity, accuracy, safety, and tone in conversational AI health coach dialogues. *Front Digit Health*. 2025 Jun 18;7:1460236. doi: 10.3389/fdgth.2025.1460236. PMID: 40607190; PMCID: PMC12216977.	N/A	• Developed iteratively by behavioral scientists and psychologists. • Evaluated both individual message (turn-level) and full conversation (dialogue-level). • Used dichotomous scoring (Acceptable/Unacceptable) across four domains: Fidelity, Accuracy, Safety, Tone (FAST). • Included evaluator training, supervision, SME reviews, and escalation protocols.	• Framework applied to real-world users of “Coach Iris,” a GenAI health coach for obesity treatment. • Evaluation team included Master’s and Doctorate-level professionals in health coaching, psychology, and digital health.	• FAST framework enabled structured, consistent evaluation of AI-patient interactions. • Continuous improvements made based on evaluator feedback and SME input. • Software developed to support remote evaluations and escalation tracking.	• FAST offers a scalable, non-technical method to monitor AI health coach safety and quality. • Human oversight remains essential; future work includes validation and automation support. • Framework can guide safe deployment and improvement of GenAI in healthcare.

Allurion Literature – Congress Abstracts (36)

Multi- & Single-Center Studies Demonstrating Safety & Efficacy

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GLP-1s and the Virtual Care Suite

Behavioral Science

AI and Machine Learning

MANUSCRIPTS

Multicenter Studies Demonstrating Safety & Efficacy

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Caballero A, Giardiello C, Oyola C, et al. The Swallowable Gastric Balloon: Global Experience in 5003 Consecutive Patients - The Largest Gastric Balloon Study in the World IFSO 2023, Oral-325, page 341	5003	• Design: Analysis of data from 5003 consecutive patients. • Procedure: Allurion Gastric Balloon (AGB) Program with monthly in-person and weekly virtual follow-ups. • Assessments: Weight loss, metabolic parameters, ease of placement, device performance, and complications.	• Participants: 5003 patients from 26 centers across 9 countries. • Mean Age: 42.5 years. • Mean Weight: 95 kg. • Mean BMI: 34.1 kg/m².	• Weight Loss: Mean weight loss of 13.5 kg and BMI loss of 4.84 kg/m². • Metabolic Improvements: Significant improvements in triglycerides, LDL cholesterol, and HbA1c. • Adverse Events: Intolerance requiring removal (2.1%), early deflations (0.4%), and other minor complications.	• Efficacy: AGB Program achieved 14% total body weight loss and improved metabolic parameters. • Safety: Consistent safety profile with minimal adverse events. • Potential: Virtual Care Suite enhances follow-up and optimizes outcomes.
Genco A, Giardiello C, Lucchese M, et al. Effects of New Procedureless Intragastric Balloon (Allurion ®) on Metabolic Syndrome and Pre-Diabetes: Italian Group's Experience on 324 Patients with Overweight and Obesity. SOARD, 2018, 14, S56-S66	324	• Procedure: Elipse® Balloon swallowed inside a dissolvable capsule, filled with 550 mL fluid, and naturally excreted after 4 months. • Assessments: Weight loss, metabolic outcomes, and adverse events.	• Participants: 324 patients (59% female). • Mean Age: 45.77 years. • Mean Weight: 103.99 kg. • Mean BMI: 36.8 kg/m².	• Weight Loss: Mean weight loss of 14.3 kg, total body weight loss of 13.75%, and BMI reduction of 4.98 kg/m². • Metabolic Improvements: Significant improvements in metabolic syndrome components and glucose metabolism. • Adverse Events: Early balloon removal (1.3%), early excretion (0.3%), no serious adverse events.	• Efficacy: Elipse® Balloon is safe and effective for weight loss. • Metabolic Benefits: Significant reduction in obesity-related metabolic diseases. • Safety: Minimal adverse events.
Ienca R, Rosa M, Selvaggio C, et al. Expanding the reach of Intragastric Balloons; First multicenter results of Allurion Balloon in non-core user group. SOARD, 2018, 14, S99-S196	64	• Design: Data collection from 6 internist-led obesity centers in Italy and Spain. • Procedure: Elipse™ Intragastric Balloon placed without anesthesia or endoscopy, filled with 550 mL fluid. • Assessments: Weight loss, metabolic parameters, and adverse events.	• Participants: 64 patients (25 males, 39 females). • Mean Age: 45.1 years. • Mean BMI: 35 kg/m². • Mean Weight: 101.4 kg.	• Weight Loss: Mean BMI loss of 5.7 kg/m², %EWL of 64%, and %TBL of 16%. • Metabolic Improvements: Significant reductions in triglycerides and LDL cholesterol. • Adverse Events: One balloon removal for intolerance; no serious adverse events.	• Efficacy: Elipse™ Balloon is safe and effective for weight loss. • Metabolic Benefits: Significant improvements in metabolic parameters. • Safety: Minimal adverse events, demonstrating feasibility in non-core user groups.

Single-Center Study Demonstrating Safety & Efficacy

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Caballero A Exceptional Outcomes and Safety Profile in the First 2,000 Patients Treated with the Allurion Balloon Program at a Single Spanish Bariatric Center ECO 2025	2000	• Retrospective analysis • Structured program including dietary guidance, medical supervision, and psychological support • Weight loss assessed at 4 and 6 months (TWL%, EWL%, Fat Mass%, Muscle Mass%) • Safety evaluated by incidence of adverse events and complications	• 2,000 patients treated between 2017 and 2024	• 4 months: TWL% 12.36% ± 7.39%, EWL% 43.47% ± 28.72% • 6 months: Fat Mass reduced by 7.8%, Muscle Mass increased by 9.8% • Improved metabolic markers (HbA1c, lipid profiles) • Low complication rate (<0.96%), few cases of early balloon removal (0.9%) • No severe adverse events or mortality	• Allurion Balloon Program is safe, effective, and scalable • Significant weight loss with minimal complications • Enhances comprehensive obesity management, bridging dietary management and bariatric surgery

Virtual Care Suite Database: Allurion Balloon Efficacy Data

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Nadeau. B, Griffiths. Z, Neary. M, Chuttani. R Real World Outcomes Of The Swallowable Intragastric Balloon In 19,428 Patients Obesity Week 2024, Poster 196	19,428	• Design: Analysis of data from the SIGBP digital platform. • Procedure: Swallowable Intragastric Balloon Program (SIGBP) with baseline and 4-month weight measurements. • Assessments: Weight loss, BMI loss, and total body weight loss (TBWL).	• Participants: 19,428 patients from 72 countries. • Median Starting Weight: 91.9 kg. • Median BMI: 33.3 kg/m².	• Weight Loss: Median weight loss of 11.20 kg, BMI loss of 4.10 kg/m², and TBWL of 12.2%. • Consistency: No significant differences in weight loss by treatment year, starting month, or age. • Correlation: Higher weight loss in month 1 correlated with continued weight loss through month 4.	• Efficacy: SIGBP is a highly consistent and effective obesity treatment option. • Potential: Demonstrates significant weight loss across a large, diverse population.

Body Composition: GLP-1 Data from the VCS

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Nadeau B, Trimble W, Chuttani R Optimizing body composition and lean mass preservation: The value of AI-powered digital platforms and health coaches for patients on GLP-1 medications ECO 2025, poster #1097	138	• Study Design: Retrospective study • Intervention: AI-powered digital platform with personalized meal plans, exercise routines, medication reminders, and real-time feedback • Medications: GLP-1 (tirzepatide, semaglutide, liraglutide) • Measurements: Weight loss (WL), total body weight loss (TBWL), fat mass (FM), visceral fat index (VFI), muscle mass (MM), lean body mass (LBM)	• Age: Mean 47.8 years • Gender: 73.2% female • BMI: Mean starting BMI 33.9 kg/m²	• Duration: 4 months • Weight Loss: WL 12.8 kg, TBWL 13.0% • Reductions: FM 13.2%, VFI 12.9%, MM 7.0%, LBM 8.1% • Healthy VFI: 28.3% achieved VFI ≤12	• AI-powered platforms and health coaches enhance weight loss and preserve lean body mass. • Effective in addressing motivation, adherence, and lifestyle adjustments. • Future studies needed for long-term impact.

Body Composition: Allurion Balloon Data from the VCS (1/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Caballero, A; Raftopoulos, Y; Shahin, M; Otárola, M; Balalis, G; Hawke, J; Docimo, C; Griffiths, Z; Ienca, R Body Composition Changes during the Swallowable, Non-Endoscopic Gastric Balloon Program (SIGBP): Prioritizing Lean Mass Preservation for Sustainable, Healthy Weight Loss ECO, Poster 2024 #GC4.263, page 446	712	• Conducted at six obesity centers across six countries. • Duration: November 2016 to April 2023. • Intervention: 4-month SGBP (Allurion Balloon) with monthly follow-ups for at least 6 months. • Body composition measured at baseline and 4 months using BIA methods. • Devices used: Inbody® (230, 270, 370s) and Tanita® (MC-580).	• 27% male, 73% female. • Initial mean age: 43.9 years. • Initial mean weight: 97.9 kg. • Initial mean BMI: 34.6 kg/m².	• Weight loss (WL): 14 kg. • Total body weight loss (TBWL): 14.1%. • Fat mass (FM) reduction: 9.8 kg. • Lean mass (FFM) reduction: 4.2 kg. • Muscle mass (MM) reduction: 2.5 kg. • Significant reductions in FM, FFM, and MM ($p < .005$). • Mean proportion of FFM losses vs total: 30.1%.	• The SGBP facilitated significant weight loss and predominantly fat mass losses. • Preservation of lean body mass supports sustainable weight loss and health. • Long-term outcomes are important to monitor.
Nadeau B, Chuttani, R. The Swallowable Gastric Balloon Program with AI Powered Health Coach Leads to Metabolically Healthy Weight Loss in French Patients SOFFCOMM, Oral Presentation, 2025	1962	• Retrospective analysis of French patients using the Swallowable Gastric Balloon Program (SGBP) from 2018–2023. • Data collected via Bluetooth-connected scale with bioelectrical impedance and AI-powered mobile app. • Metrics: weight loss (WL), total body weight loss (TBWL), fat mass (FM), visceral fat index (VFI), muscle mass (MM), lean body mass (LBM).	• 1962 patients; 84.9% female. • Mean age: 41.8 years; mean BMI: 33.6 kg/m².	• After 4 months: WL = 11.5 kg; TBWL = 12.2%. • FM, VFI, MM, and LBM reduced by 22.2%, 12.2%, 6.5%, and 7.0% respectively (all $p<0.0001$). • 29.1% of patients with high VFI normalized to healthy levels.	• SGBP led to significant fat loss with minimal lean mass reduction. • Digital tools enabled effective remote monitoring and support for sustainable weight loss.

Body Composition: Allurion Balloon Data from the VCS (2/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Nadeau B, Trimble W, Chuttani R Lean Body Mass Preservation For Sustainable, Healthy Weight Loss: Favorable Body Composition Changes During The Swallowable Gastric Balloon Program ASMBS, Poster Presentation, 2025	19,946	• Quantitative analysis of 19,946 patients from the Allurion digital platform (2020–2024). • Body composition measured via at-home bioelectrical impedance scale. • Remote support provided through mobile app.	• Mean age: 40.3 years; 76.4% female. • Baseline weight: 95.6 kg; BMI: 34.5 kg/m².	• After 4 months: average weight loss = 11.9 kg; TBWL = 12.4%. • Muscle mass increased by 6.5%; lean body mass by 6.0%. • Fat mass decreased by 11.3%; visceral fat index reduced by 12.3%.	• SGBP led to significant fat loss while preserving lean body mass. • Supports healthier, sustainable weight loss outcomes. • Reinforces the importance of lean mass preservation in obesity treatment.
Nadeau B, Chuttani R Sustainable Weight Loss in Patients from Latin America: Lean Body Mass Preservation with the Swallowable Gastric Balloon IFSO, Oral Presentation, 2025	5,649	• Retrospective analysis of Latin American patients using the Swallowable Gastric Balloon Program (SGBP) from 2020–2024. • Data collected via mobile app and bioelectrical impedance scale measuring WL, TBWL, FM, VFI, MM, and LBM.	• 5649 patients; 72.0% female. • Mean age: 40.3 years; mean BMI: 33.6 kg/m².	• After 4 months: WL = 11.7 kg; TBWL = 12.6%. • Body composition changes (as % body wt): FM –12.0%, VFI –12.6%, MM +6.8%, LBM +6.1% (all $p<0.0001$) • 31.3% of patients with excess VFI normalized to healthy levels.	• SGBP led to significant fat loss with lean body mass preservation. • Supports sustainable, health-focused weight management in Latin American populations.

Allurion Program vs Lifestyle Intervention alone

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Raftopoulos Y, Tsechpenakis A, Davidson M E, Chapin K, Reardon C, McMillian U The Swallowable Gastric Balloon Significantly Enhances an Intensive Lifestyle Intervention Program for Weight Loss: Final Short and Long Term Results up to 1 Year after Balloon Placement. ASMBS 2021	553	• Design: Prospective, BMI-matched, intention-to-treat comparison. • Procedure: Intensive lifestyle intervention (ILI) with and without Elipse™ Intragastric Balloon (IGB). • Assessments: Weight loss measured monthly, with data at 16 and 52 weeks.	• Participants: 140 in Elipse plus ILI group, 413 in ILI alone group. • Mean Age: 42.83 years (Elipse plus ILI), 48.34 years (ILI alone). • Mean BMI: 36.7 kg/m² (Elipse plus ILI), 36.8 kg/m² (ILI alone).	• Weight Loss: Mean %TBWL at 16 weeks was 14.9% for Elipse plus ILI group. • Maintenance: 93% of weight loss maintained at 1 year. • Complications: No complications reported.	• Efficacy: Elipse™ IGB significantly enhances weight loss when added to ILI. • Long-Term Benefits: High percentage of weight loss maintained at 1 year. • Safety: No complications, highlighting the potential of this combined treatment.

Long Term Weight Maintenance (1/3)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Nadeau B, Trimble W Chuttani R Four-year Outcomes Of The Swallowable Gastric Balloon Program: A Quantitative Real-world Study ASMBS, poster presentation, 2025	223	• Quantitative analysis of patients with baseline and 48-month weight data from the Allurion digital platform. • Data analyzed using SAS® 9.4.	• 223 patients; 69.1% female. • Mean age: 41.4 years; mean baseline weight: 93.9 kg; BMI: 33.3 kg/m².	• Sustained weight loss observed at 4, 12, 24, 36, and 48 months (all p<0.0001). • Average %TBWL remained ~10% across all time points. • Weight loss at 48 months: 10.0 ± 13.3 kg; %TBWL: 10.1 ± 12.5%.	• SGBP demonstrated consistent, long-term weight loss over 4 years. • Digital tools (Bluetooth scale, mobile app) enabled effective remote follow-up. • Offers a scalable, non-surgical option for obesity management.
Ienca R, Giardiello C, Schiano Di Cola R, et al. Achieving Sustained Weight Loss at 3-Years with a Swallowable Gastric Balloon Program IFSO-EC 2024	128	• Design: Long-term follow-up study. • Procedure: Swallowable Gastric Balloon Program (SGBP) with monthly follow-ups during 4-month balloon residence and virtual follow-ups post-treatment. • Assessments: Weight loss (WL), total body weight loss (TBWL), and BMI loss (BMIL) at 4 months and 3 years.	• Participants: 128 patients (response rate 26%). • Mean Age: 47.08 years. • Mean Weight: 98.17 kg. • Mean BMI: 34.88 kg/m².	• Weight Loss: WL of 15.16 kg at 4 months and 12.67 kg at 3 years. • Maintenance: 81.2% TBWL maintained at 3 years. • Adverse Events: One balloon excreted by vomiting; one endoscopic removal due to intolerance. • Behavioral Changes: 73% reported beneficial changes in eating habits.	• Efficacy: SGBP demonstrates excellent long-term weight loss maintenance. • Behavioral Impact: Significant positive changes in eating habits. • Safety: Minimal adverse events, confirming the program's effectiveness.

Long Term Weight Maintenance (2/3)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Ienca R, Giardiello C, Schiano Di Cola R, et al. The Evolution of the Allurion Program for Long-Term Weight Loss: From Virtual Monitoring to a Virtual Care Suite European Congress on Obesity, May 2022 - LBP4.16	522	• Design: Retrospective analysis from 9 international obesity centers. • Procedure: Allurion Virtual Care Suite (VCS) with monthly follow-ups during 4-month balloon residence and 1-year post-treatment. • Assessments: Weight loss (WL), %Total Body Weight Loss (%TBWL), %Excess Weight Loss (%EWL), BMI decrease (BMIL), metabolic data, and adverse events.	• Participants: 522 patients (334 females, 188 males). • Mean Weight: 101.9 kg. • Mean BMI: 35.9 kg/m².	• Weight Loss: WL of 14.4 kg at 4 months and 14.2 kg at 1 year. • Maintenance: 96% TBWL maintained at 1 year. • Adverse Events: Intolerance requiring balloon removal (1.2%), gastric dilation (0.2%), gastritis (0.2%), gastric perforation (0.2%).	• Efficacy: Allurion Program demonstrates excellent short and long-term weight loss. • Safety: Minimal adverse events. • Potential: VCS enhances follow-up and optimizes outcomes.
Ernesti I, Formiga A, Giardiello C, Genco A, Sukkar S, Zappa M, Rovati M, Rosa M, Watanabe M Effects of a New Procedureless Intragastric Balloon on Weight Loss and Metabolic Syndrome: Multicenter Registry Experience with 1 Year Follow- up. ASMBS 2021	324	• Retrospective analysis of data from the Italian Elipse Group (Jan 2017 - Jul 2019) • Focus on short-term effects of Elipse Balloon on weight loss and metabolic syndrome (MS)	• 324 patients (59% female) • Mean age: 46 years • Mean weight: 104 kg • Mean BMI: 36.8 kg/m²	• After 16 weeks: Mean weight loss of 14.3 kg, ΔBMI of 5 kg/m², TBWL of 13.75%, EWL of 43.3% • At 1-year follow-up: TBWL of 10.1%, EWL of 31%, ΔBMI of 3.7 kg/m² • MS incidence: 43.5% at baseline, 15.7% at 4 months, 17.9% at 1 year • Early balloon removal: 1.3% • Adverse events: Nausea (59%), regurgitation (45%), abdominal pain (35.1%), vomiting (12%)	• Elipse Balloon is safe and effective • Induces significant weight loss and sustained reduction in MS incidence • No serious adverse events (SAEs) recorded

Long Term Weight Maintenance (3/3)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Ienca R., Caballero A., Giardiello C., Pagan A., Rosa M., Badiuddin F., Junejia G., Formiga A., Murcia S. Long-Term Efficacy of the Allurion Gastric Balloon System: An International Multicenter Study TOS Obesity Week 2020 / Oral 068	509	• Retrospective analysis of data from 9 obesity centers (Mar 2016 - Feb 2019) • Monthly follow-up during treatment and 1 year after balloon passage • Use of Bluetooth-connected scale and smartphone app for virtual follow-up	• 509 patients (321 female, 188 male) • Mean weight: 102.6±21.3 kg • Mean BMI: 35.9±5.8 kg/m²	• After 4 months: Weight loss of 14.4±7.7 kg, TBWL of 13.9±6.4%, BMIL of 5.1±2.6 kg/m² • At 1-year follow-up: Weight loss of 14.1±11.7 kg, TBWL of 13.3±9.9%, BMIL of 4.9±4.0 kg/m² • Significant improvement in metabolic parameters • Adverse events: Intolerance (1.2%), gastric dilation (0.2%), gastritis (0.2%), gastric perforation (0.2%)	• EGBS shows excellent short and long-term weight loss • Very few adverse events • Effective virtual follow-up using Bluetooth-connected scale and smartphone app

Patient Subgroups: Diabetes, Severe Obesity, Overweight (1/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Bhandari M, Mathur W, Kosta S, Reddy M, Chitale D. Resolution of Diabetes with Swallowable Balloon Therapy IFSO 2023 Oral-246	42	• Treated 42 T2DM patients with obesity using a swallowable balloon • Follow-up period: 6 months • Diabetes remission defined as HbA1c <6.5% without medication; improvement as HbA1c <7.0% with reduced medication	• 42 patients with T2DM and obesity	• Diabetes remission in 67.1% of patients at 6 months • Diabetes improvement in 13.8% at 4 months and 19.1% at 6 months • Significant weight loss: %TWL of 6.5% to 15.14% over 6 months • Significant resolution of comorbidities: 75% HTN, 73.3% DLP	• Allurion swallowable balloon effectively reduces HbA1c, induces T2DM remission, and promotes weight loss
Ienca R, Rosa M, Pagan Pomar A, Hansoulle J, Caballero A. Emerging Role of the New Swallowable Gastric Balloon in Type 2 Diabetes and Prediabetes Treatment TOS Obesity Week 2021 / Poster 114	226	• Retrospective analysis from 5 obesity centers • Included patients with HbA1c in prediabetes (5.7–6.4%) or diabetes (≥6.5%) range • Swallowed Allurion Gastric Balloon System (AGBS) without endoscopy or anesthesia • Monthly follow-up	• 226 patients (135 female, 91 male) • Mean baseline HbA1c: 6.3±0.6% • Mean weight: 108.4±21.7 kg • Mean BMI: 37.3±5.7 kg/m²	• After 4 months: Weight loss of 17.7±7.1 kg, TBWL of 16.2±5.5%, BMIL of 6.1±2.4 kg/m² • Diabetic group: HbA1c decreased from 7.0±0.6% to 5.5±1.1%, mean weight loss of 19.3±7.1 kg • Prediabetic group: HbA1c decreased from 6.0±0.2% to 4.9±0.7%, mean weight loss of 16.9±7.0 kg • Adverse events: 5 balloons removed for intolerance, 1 gastric dilation requiring NG tube and removal	• AGBS is safe and effective for overweight and obese patients with Type 2 Diabetes and Prediabetes • Significant reduction in HbA1c achieved in 4 months

Patient Subgroups: Diabetes, Severe Obesity, Overweight (2/2)

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Oyola C., et al. A Novel Swallowable Intragastric Balloon Promotes Safe Weight Loss in Patients with a BMI Less than 27 Obesity Week 2023	114	• Data collected from individuals with BMI <27 kg/m² • Swallowed intragastric balloon (IGB) filled with 550 mL of liquid as an outpatient • Data collection included weight, BMI, %TBWL, and adverse events from 8 international weight-loss centers	• 114 adult subjects (88.6% female) • Mean age: 41.6±9.07 years • Mean weight: 69.28±5.45 kg • Mean BMI: 25.56±1.10 kg/m²	• After 4 months: Mean weight 61.09±5.73 kg, BMI 22.53±1.38 kg/m², %TBWL 11.84% • %TBWL: 11.91% for BMI 25-27 kg/m², 11.64% for BMI <25 kg/m² • Adverse events: 6.1% experienced transient nausea/vomiting, no serious adverse events	• IGB is a less invasive and safe option for weight loss in patients with BMI <27 kg/m² • Early intervention may prevent progression to obesity and associated morbidity and mortality
Rajkukmar S and Raftopoulos Y. Procedureless Gastric Balloon Experience: A Focused Comparative Analysis on BMI < vs. ≥ 40 Subgroups. ASMBS 2023	232	• Data collected from 232 patients at a single center (2016-2022) • Outcomes measured: weight loss (kg), %TBWL at various intervals, premature extraction, inability to place balloon, follow-up rates	• 232 patients • Mean age: 42.6±10.3 years • Mean BMI: 37.6±7.2 kg/m²	• %TBWL at 4, 8, 12, 16, 24, 52 weeks: 8.2%, 11.5%, 13.9%, 15.9%, 18.1%, 18.4%, 17% • Greater weight loss in BMI ≥40 group at all intervals (p<0.0001) • Follow-up rates: 83.2% (BMI<40) vs. 88.5% (BMI≥40) at 16 weeks; 48.9% vs. 40% at 52 weeks • Premature extraction: 3.4%, inability to place balloon: 0.4%	• Allurion® GB is very effective for patients with BMI ≥40 kg/m² • First study to analyze outcomes within BMI subgroups

Remote Follow-up using Telehealth

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Raftopoulos Y, A Tsechpenakis The Swallowable Gastric Balloon: A Telehealth Approach with Best-in- Class Weight-loss Results. An open randomized trial with remote follow-up through asynchronous or synchronous communication. ASMBS 2021	140	• Open randomized trial with 140 patients • Remote follow-up (RFUP) using Bluetooth-connected scale and body composition analyzer • Weekly data submission via smartphone app • Patients assigned to asynchronous (A=42) or synchronous (B=32) communication	• 140 patients • Mean starting BMI: 36.7 kg/m²	• %TBWL at 16 weeks: 14.9% • Group B showed better %TBWL at 16 weeks (15.6 vs. 13.5, p=.004), 20 weeks (18.5 vs. 13.6, p=.0003), and 24 weeks (18.7 vs. 13.5, p=.0001) • Regression analysis: Follow-up group significantly affected 16-week %TBWL • No serious adverse events (SAEs)	• Elipse IGB with RFUP achieves safe and effective weight loss without physical visits • Synchronous communication resulted in excellent %TBWL of 18.7% at 24 weeks

Combination Therapy: Allurion + GLP-1s

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Flagiello L, Romano A, Romano R, Maisto A, Montanaro V, Borrelli S and Gianmattia DG Metabolically Healthy Weight Loss: Synergistic Effects of the Swallowable Balloon and Low-Dose GLP-1 Therapy IFSO, Oral Presentation, 2025	52	• Retrospective study of patients receiving the Allurion Balloon followed by low-dose semaglutide (0.25mg → 1.0mg over 3 months). • Semaglutide continued for 7 months; monitored for weight, lean body mass (LBM), fat mass (FM), adverse events, and adherence.	• 52 patients; 46.2% female. • Mean age: 39.6 years; mean weight: 120.6 kg; BMI: 40.2 kg/m².	• After 8 months: TBWL = 20.3%. • LBM increased from 60.2% to 68.2% (+13.3%); FM decreased from 36.4% to 30.2% (–17.3%) ($p<0.0001$). • 100% adherence to semaglutide; one balloon removal due to gastric outlet obstruction.	• Combining AGBP with low-dose semaglutide yields superior weight loss, LBM preservation, and adherence vs. standard semaglutide alone. • Lower dose may reduce side effects and improve tolerability.

Combination Therapy: Allurion + GLP-1s

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Ienca R The New Era of Combination Weight Loss Treatments: The Swallowable Gastric Balloon Program and the Anti-Obesity Medication (AOM) Semaglutide ECO 2025	60	• Retrospective analysis over 10 months • Combination of swallowable gastric balloon program (SGBP) and semaglutide (GLP-1 receptor agonist) • SGBP for 4 months, followed by semaglutide for 6 months • Data on weight loss, BMI loss, and adverse events collected	• 60 patients (73% female) • Mean weight: 101.4±24.5 kg • Mean BMI: 36.0±7.0 kg/m²	• 4 months (SGBP): WL 16.2±6.6 kg, TBWL 15.9±5.0%, BMIL 5.7±2.1 kg/m² • 10 months (SGBP + semaglutide): WL 21.9±8.9 kg, TBWL 21.2±5.7%, BMIL 7.8±2.9 kg/m² • Metabolic improvements: WC, LDL, TG, HgbA1c significantly reduced	• Combination therapy achieves significant weight loss and metabolic improvements • Comparable to bariatric surgery outcomes • Safe and effective enhancement of weight loss and metabolic parameters with semaglutide
Ienca, R, Ayuso, L, Shahin, M Swallowable intragastric balloon program (Allurion program) and GLP1 agonist combined treatment for obesity: an international multicenter study. ECO 2023	181	• Retrospective analysis from 3 international multidisciplinary obesity centers • Combination of Allurion balloon program and Saxenda® • Follow-up for at least 6 months	• 181 patients (145 female, 36 male) • Mean weight: 94.8 ± 21 kg • Mean BMI: 33.7 ± 6.2 kg/m²	• After 4 months of balloon treatment: WL 13.1 ± 7 kg, %TBWL 13.9 ± 7.7%, %EWL 74.3 ± 57.1%, BMIL 4.5 ± 1.4 kg/m² • Saxenda® added between week 4 and 16 • End of treatment with Saxenda®: WL 18.1 ± 12.1 kg, %TBWL 18.7 ± 12%, %EWL 99.4 ± 84.9%, BMIL 6.4 ± 5.9 kg/m² • Adverse events: Balloon intolerance (1.1%), gastric dilation (0.5%), early balloon deflation (0.5%), Saxenda®-related nausea (16.5%), diarrhea (3.3%), constipation (2.2%), headache (1.7%)	• Allurion balloon program is effective for weight loss • Combination with Saxenda® is safe and enhances weight loss results

Allurion Program for Non-Responders to GLP-1s

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Nadeau. B, Griffiths. Z, Chuttani. R, Rodríguez Vera. A, García Casilimas. G, Palermo. M Non-responders To GLP-1 Treatment Achieve Weight Loss With Swallowable Intragastric Balloon Program Obesity Week 2024, Poster #195	27	• Retrospective report from SIGBP providers in Colombia and Argentina • Included patients who discontinued GLP-1 treatment within 12 months before SIGBP	• 27 patients (74% female) • Mean age: 47.7±15.72 years • Mean weight: 91.1±19.86 kg • Mean BMI: 33.1±4.94 kg/m²	• 55% reported no weight loss, 45% <5% TBWL on liraglutide • On SIGBP: 17.6% TBWL at 4 months ($p<0.0001$), 72% lost >15% TBWL • Adverse events: Nausea, vomiting, abdominal discomfort (≤2 weeks duration), no serious adverse events	• SIGBP effective for patients non-responsive to GLP-1 medications • Favorable adverse event profile compared to liraglutide

GLP-1s and the Virtual Care Suite

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Nadeau B, Trimble W, Chuttani R Enhancing weight loss outcomes with GLP-1 medications: The role of AI-powered digital platforms and health coaches ECO 2025	43	• Retrospective analysis using data from AI-powered digital platform (Virtual Care Suite, Allurion Technologies) • Patients prescribed GLP-1 medications (tirzepatide or semaglutide) • Measurements at baseline, 3, 6, and 9 months • AI platform provided personalized meal plans, exercise routines, medication reminders, and real-time feedback	• 43 patients (69.8% female) • Mean age: 46.7±12.4 years • Baseline weight: 98.3±13.5 kg • Baseline BMI: 32.4±3.8 kg/m²	• 3 months: WL 10.7±4.8 kg, TBWL 10.9±4.4% • 6 months: WL 15.5±5.8 kg, TBWL 15.6±5.5% • 9 months: WL 17.1±6.3 kg, TBWL 17.3±5.2% • Significant weight loss at each time point ($p<0.0001$)	• AI-powered platform and health coach enhance weight loss outcomes and adherence • AI interventions outperform real-world weight loss data for GLP-1 medications • Future research needed on long-term effects and cost-effectiveness

Behavioral Science

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Fulton E, Sacher P, Griffiths S, Rogers V, Wilson J, Chuttani R The Importance of Self-Efficacy and Perceived Behavioral Control on the Achievement and Maintenance of Weight Loss During Treatment With an Intragastric Balloon and mHealth Coaching Program Canadian Obesity Summit 2023	30	• Qualitative exploratory study • Online, 45-minute semi-structured interviews conducted at varying times from IGB placement to 6 months post-placement	• 87% female	• 43 interviews conducted • Patients reported IGB helped them lose weight due to reduced hunger, increased satiety. • Reported IGB 'shifted mindset', including control of overeating and increased self-efficacy for behavior change. • Data suggests variation in perceived behavioral control amongst patients – for some awareness and self-efficacy was low	• Enhancing self-efficacy and perceived behavioral control appears necessary to impact outcomes in IGB patients. • Further research will explore this relationship and identify methods to support this cognitive shift • more universally.

Behavioral Science

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Sacher P, Fulton E, Rogers V, Wilson J, Gramatica M, Liu J, Chuttani R A Path to Automation: Text-Based Coaching Achieves Key Outcomes in Procedureless Balloon Patients Obesity Week 2023 Link to Poster	114	• 12-month, single-arm, prospective study • Adults with BMI ≥27 kg/m² at bariatric clinics in the UK and Netherlands • Remote after-care delivered via asynchronous in-app text messages from health coaches	• 114 patients (90% female) • Mean age: 42±10.6 years • Mean BMI: 35.4±5.4 kg/m²	• %TBWL: 10.9% at 4 months, 13.5% at 6 months, 11.2% at 12 months • High levels of intervention satisfaction and improved eating and physical activity habits (88% and 83%, respectively)	• Health coach-led, asynchronous text-based digital behavior change intervention was engaging and acceptable • Supported improved weight loss and lifestyle behavior changes • Potential need for longer-term, more intense coaching for weight loss maintenance

Sacher P, Fulton E, Rogers V, Wilson J, Gramatica M, Liu J, Chuttani R
 	
A Path to Automation: Text-Based Coaching Improves Well-Being in Procedureless Balloon Patients
 	
Obesity Week 2023
Link to Poster
	114	• 12-month, single-arm, prospective study
		• Adults aged 21-65 with BMI ≥27 kg/m² at 5 bariatric clinics in the UK and Netherlands
		• Psychological well-being, mood, self-efficacy, quality of life, and control over eating assessed via validated questionnaires
			• 114 participants (90% female)
			• Mean age: 42±10.6 years
			• Mean BMI: 35.4±5.4 kg/m²
				• Significant improvements over 12 months in:
				  • Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS): +3.7 (p=0.02)
				  • Loss of Control Over Eating Scale (LOCES): -6.3 (p<0.01)
				  • Impact of Weight on Quality of Life (IWQOL-Lite-CT): +10.9 (p<0.001)
				  • Weight Efficacy Lifestyle Questionnaire (WEL-SF): +6.9 (p=0.02)
				• No significant improvements in Generalized Anxiety Disorder Scale (GAD-7) and Barriers to Being Active Quiz (BBAQ)
				• Small reversion in scores between 6 and 12 months after intervention ended
					• Digital Behavior Change Coaching Intervention (DBCCI) improved psychological well-being
					• Scores remained higher at 12 months than baseline
					• Suggests need for longer-term delivery of DBCCI

Behavioral Science

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Paul M. Sacher, Victoria Rogers, Julia Wilson, Zoe Griffiths, Bill Nadeau, Graham Finlayson, Jason C.G. Halford, Ram Chuttani Digital Tracking of Hunger and Fullness Enhances Awareness of Appetite, Food Choices and Portion Sizes in Patients with a Swallowable Gastric Balloon ASMBS, Poster, 2024 Also presented at: Obesity Week 2023 Link to Poster	9	• Mixed methods exploratory study • Patients enrolled in a 6-month Procedureless Intragastric Balloon (PIGB) program • Daily appetite tracking using a validated digital visual analogue scale (DVAS) for two weeks • Weekly survey feedback on appetite awareness, food choices, and portion sizes	• 9 UK females • Compliance: 96% completed DVAS at least once daily	• Significant negative correlation between hunger and fullness scores ($r = -0.849$; $p<0.001$) • Heightened awareness of hunger (78%) and fullness (73%) • Improved understanding of the connection between appetite and eating habits (59%) • Participants reported healthier food choices and reduced portion sizes	• DVAS enhances appetite awareness, promotes better food selection, and facilitates portion control in PIGB patients • Preliminary findings suggest digital appetite tracking can effectively influence dietary behaviors

Behavioral Science

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Griffiths et al. Training HCPs in behavior change coaching skills improves weight loss outcomes of the Swallowable, Non-Endoscopic Gastric Balloon Program ECO, Poster 2024	Course delivered in 5 countries, to 91 attendees during 2023. Survey was completed by 32 participants (30% response rate).	• Developed and delivered a one-day behavior change coaching course for healthcare professionals (HCPs) • Course included 7 hours of training by registered dietitians • Evaluated impact on patient weight loss outcomes before and after training	• 91 attendees from 5 countries in 2023 • Survey completed by 32 participants (30% response rate)	• 100% of participants felt confident in integrating skills into practice • 6.3% improvement in patients achieving >10% TBWL at 4 months post-training ($p<0.001$) • No unrelated changes reported in clinic teams, processes, or tools	• Behavior change coaching training significantly improves weight loss outcomes • HCP confidence and skills in delivering behavior change coaching enhanced • Indicates the importance of practice to consolidate skills and learning •

Behavioral Science

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Pain J and Griffiths Z The Anti-Obesity Medication Halo Effect: Rising Interest in Medications Drives Increased Awareness and Uptake of Other Medical Obesity Treatments. ECO, Poster 2024	10,457 patients and 2,557 HCPs were invited to participate	• Survey of 10,457 patients and 2,557 HCPs from 75 countries • Online survey in September 2023, no incentives offered	• 1,663 patients (15.9% response rate) from 64 countries • 172 HCPs (6.7% response rate) from 43 countries	• 57% of patients heard of GLP1s, 22% prescribed one • Increased awareness of medical obesity treatments (64%) • HCPs reported 59% increase in patient inquiries about medically led weight loss treatments • 70% of HCPs saw positive impact on awareness and interest in all medical weight loss options	• Growth of GLP1s increases patient consideration and uptake of medically led obesity treatments, including SGBP.

AI and Machine Learning

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Ainscough B, Sankhe R, Sacher P, Martinez C, Feldgoise J Machine Learning to Predict Success of Response for Patients Treated with a Procedureless Balloon Obesity Week 2023	7384	• Data from 7384 patients with BMI ≥ 27 undergoing PIGB program (2018-2022) • Responders: ≥10% total body weight loss at 4 months • Variables: age, sex, weight, steps, exercise, sleep, weigh-in rate from digital scale, smartwatch, smartphone app • Ensemble model with gradient boosting classifiers	• 7384 unique patients	• Model performance: accuracy 0.93 (SD = 0.06), precision 0.94 (SD = 0.07), recall 0.88 (SD = 0.1) • Predictive value at day 20 (accuracy = 0.82), converged at day 30 (accuracy = 0.92)	• ML effectively predicts responders/non-responders to PIGB by day 20 • ML can optimize patient care and outcomes early in therapy
Griffiths Z, Sacher P, Wilson J, Rogers V, Neary M, Fulton E Think FAST: A novel framework to evaluate and monitor the Fidelity, Accuracy, Safety, and Tone of an AI Conversational Agent supporting patients receiving obesity treatment IFSO-EC 2024	NA	• Developed and implemented a bespoke CA for obesity treatment support • Iterative process for evaluation framework development, testing, training, and reviewing • Human reviewers trained to use the framework • Established consistent review quality and patient safety procedures for escalations	• Over 1300 conversations reviewed	• Framework evaluates conversations at message and overall conversation level • Domains: Fidelity, Accuracy, Safety, Tone (FAST) • Example questions: evidence-based strategies, scientific accuracy, risk response, empathetic communication	• Framework ensures quality and safety in CA-supported healthcare settings • Future work on automated monitoring could improve review and escalation efficiency

AI and Machine Learning

Citation	Sample size (N)	Methods	Demographics	Results	Conclusions
Griffiths Z, Sacher P, Wilson J, Rogers V, Neary M, Fulton E Assessing Perceptions and Experience of Using a Novel AI Conversational Agent, Fine-Tuned for Patients on a Swallowable Gastric Balloon Program IFSO-EC 2024	33	• Mixed methods approach with in-depth interviews and surveys • Participants: 33 (85% female, mean age 48) from 8 UK and Australian obesity clinics	• 33 participants (85% female, mean age 48)	• Interviews (n=13): Chatbots seen as frustrating, impersonal, rigid • Surveys (n=20): High satisfaction with CA-SIGB (support quality 94%, personalization 84%, accuracy 100%, trustworthiness 89%) • Positive descriptors: 'non-judgmental', 'friendly', 'understanding', 'empathetic'	• Initial skepticism towards chatbots • CA-SIGB prototype well-received, supportive, trustworthy • CAs promising for weight loss support • Need for patient education to overcome preconceived beliefs
Griffiths Z, Sacher P, Wilson J, Rogers V, Neary M, Fulton E A Novel Conversational Agent Fine-Tuned for Bariatric Treatment Provides Safe and Accurate Patient Care: A Multi Country Study ASMBS 2024	N/A	• Conversations between patients and CA ("Coach Iris") reviewed using FAST framework (Fidelity, Accuracy, Safety, Tone) • Criteria for escalating patient messages to healthcare providers based on treatment type • Manual screening of patient messages for risk, with escalation via email alerts	• 1313 conversations from 26 bariatric clinics in 12 countries over two months	• Acceptable interactions: Fidelity 84%, Accuracy 79%, Safety 89%, Tone 95% • 6.6% of messages escalated: 72% clinical concerns, 28% weight-loss concerns	• CAs provide safe, accurate, high-quality support for bariatric patients • Monitoring patient conversations ensures safe CA adoption • Future automated AI monitoring could triage concerning messages to human reviewers